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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 899,647	07.06.2001	Margaret Browning	L3-007	7722

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EXAMINER

OLIVA, CARMELO B

ART UNIT	PAPER NUMBER
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2831

DATE MAILED: 03/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/899,647

Applicant(s)

BROWNING ET AL.

Examiner

Carmelo Oliva

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) 42-46 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-17 is/are allowed.
- 6) ☐ Claim(s) 1-7, 10, 18-20, 26-28, 34-36 is/are rejected.
- 7) ☒ Claim(s) 8, 9, 21-25, 29-33 and 37-41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6. 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-41, drawn to a hardened voyage data recorder, classified in class 174, subclass 52.1.
 - II. Claims 42-46, drawn to a process for fabricating a hardened voyage data recorder, classified in class 29, subclass 592.1.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the memory subsystem can be removably coupled using different processes such as temporary fasteners (hook and loop) and snap fitting (tab and recess).
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Joseph Kaliko on February 5, 2003 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-41. Affirmation of this election must be made by applicant in replying to this

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Office action. Claims 42-46 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant's election of Group I with traverse in Paper No. 7 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Drawings

7. The corrected or substitute drawings were received on October 18, 2001. These drawings are acceptable.

Specification

8. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 18-20 rejected under 35 U.S.C. 102(b) as being anticipated by Purdom (US 5,750,925).

Regarding claim 18, Purdom discloses a hardened voyage data recorder in Fig. 1B, comprising:

(a) a removable memory subsystem 102; and
(b) a mounting base subsystem 101 removably coupled to said memory subsystem, wherein said removable memory subsystem includes non-volatile memory 109 enclosed within a boiler 105.

Regarding claim 1, said mounting base subsystem 102 includes at least one watertight cable connector 113.

Regarding claim 20, said mounting base subsystem includes watertight connectors 113 coupling inherently to an external power supply and to an external data source, in order for proper function of the internal memory device 109 and other internal electronic devices.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 1-7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purdom (US 5,750,925) in view of Wright (US 6,167,238).

Regarding claim 1, Purdom discloses a hardened voyage data recorder, comprising:

- (a) a removable memory subsystem 102;
- (b) a mounting base subsystem 101 removably coupled to said memory subsystem; and
- (c) electronic circuits 113 for electronically accessing said memory subsystem,

However, Purdom does not disclose connecting the circuits to an ethernet network. Wright teaches a voyage data recorder which is connected to an ETHERNET network (col. 26, lines 7-36). It would have been obvious to one having ordinary skill in the art at the time the invention was made to connect the electronic circuits to an ETHERNET network as taught by Wright in order to allow computer communications across Internet networking (col. 26, lines 11 and 12).

Regarding claim 2, Wright teaches firmware which provides TCP/IP access over ETHERNET to said circuits (col. 26, lines 11-12).

Regarding claim 3, Wright teaches including web pages for configuring said hardened voyage data recorder (col. 26, lines 37-50).

Regarding claim 4, said electronic circuits of Purdom are located in said mounting base subsystem (see Fig. 1B).

Regarding claim 5, said mounting base subsystem of Purdom includes at least one watertight cable connector 113.

Regarding claim 6, said mounting base subsystem of Purdom includes watertight connectors 113 coupling inherently to an external power supply and to an ETHERNET source (as taught by Wright), in order for proper function of the internal memory device 109 and other internal electronic devices.

Regarding claim 7, it would have been obvious to one having ordinary skill in the art at the time the invention was made for said electronic circuits of Purdom to accept both 110/220 VAC and 24 VDC power supplies since these are both well known standards for power input.

Regarding claim 10, said removable memory subsystem of Purdom includes nonvolatile memory 109 enclosed within a boiler 105.

14. Claims 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purdom (US 5,750,925) in view of Lemke et al. (US 5,317,463).

Regarding claim 26, Purdom discloses a hardened voyage data recorder, comprising:

- (a) a removable memory subsystem 102;
- (b) a mounting base subsystem 101 removably coupled to said memory subsystem;

However, Purdom does not disclose at least one memory interface converter chip coupled to said removable memory subsystem. Lemke et al teaches a voyage data recorder having a converter chip (A/D conversion, col. 15, lines 8-30). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have an analog to digital converter chip as taught by Lemke et al. in order for the incoming data to be converted to the correct format for storage within the memory subsystem.

Regarding claim 27, said mounting base subsystem of Purdom includes at least one watertight cable connector 113.

Regarding claim 28, said mounting base system of Purdom includes watertight connectors 113 coupling inherently to an external power supply and to an external data source, in order for proper function of the internal memory device 109 and other internal electronic devices.

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15. Claims 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purdom (US 5,750,925) in view of Purdom et al. (US 5,841,631).

Regarding claim 34, Purdom '925 discloses a hardened voyage data recorder, comprising:

(a) a removable memory subsystem 102;

(b) a mounting base subsystem 101 removably coupled to said memory subsystem.

However, wherein said removable memory subsystem does not include a stacked memory and a plurality of memory interface chips arranged for communication with a processor such that a large number of memory chips may be driven. Purdom et al. '638 teaches stacked memory interface chips which communicate with a processor. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a stack of memory chips as taught by Purdom et al. '638, in order to reduce memory volume required for housing a data recording device (col. 1, lines 9-11).

Regarding claim 35, said mounting base subsystem of Purdom '925 includes at least one watertight cable connector 113.

Regarding claim 36, said mounting base subsystem of Purdom '925 includes watertight connectors 113 coupling inherently to an external power supply and to an external data source, in order for proper function of the internal memory device 109 and other internal electronic devices.

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Allowable Subject Matter

16. Claims 11-17 are allowed.
17. Claims 8,9,21-25,29-33 and 37-41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
18. The following is a statement of reasons for the indication of allowable subject matter:

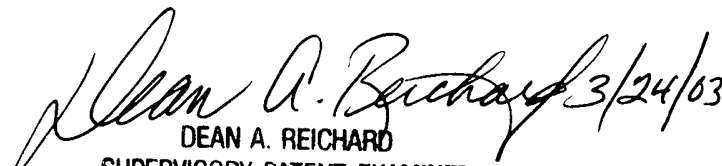
Claims 8,9,11-17,21-25,29-33 and 37-41 are allowable because the prior art alone or in combination does not teach or fairly suggest a hardened voyage data recorder having a removable memory subsystem and a mounting base subsystem each having flanges, whereby a quick release V-clamp engages the flanges and the base subsystem is removably coupled to the memory subsystem, in combination with the other claimed features.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Thompson et al., Fairbanks, and Olzak et al. each show a data recorder with removable memory.
20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carmelo Oliva whose telephone number is (703) 305-0835. The examiner can normally be reached flexible hours on Monday through Friday with every other Wednesday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard, can be reached on (703) 308-3682. The fax phone number for this Group is (703) 305-3431 for regular communications, and (703) 305-1341 for after final communications.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.


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